

## WHAT IS CLAIMED IS:

1. A system for on demand session and resource management in an on demand platform for the delivery of on demand digital assets, the system comprising:
- 5 a session manager for managing on demand sessions;  
a resource manager for managing resources associated with the on demand delivery of a digital asset to an on demand client during an on demand session;
- 10 wherein the session manager and the resource manager cooperate to form an architecture partitioned into logical components, each logical component interfacing with at least one other logical component through a defined interface, with the session manager being a separate logical component from the resource manager; and
- 15 wherein the session manager and the resource manager cooperate to provide a distributed and scalable system for on demand session and resource management.
2. The system of claim 1 wherein the resource manager includes an on demand resource manager for allocating and managing resources from a streaming server associated with the on demand delivery of the digital asset, the on demand resource manager being a separate logical component that interfaces with the session manager.
- 20 3. The system of claim 2 further comprising:  
an asset propagation manager in communication with the on demand resource manager for managing propagation of the digital asset, the asset propagation manager being a separate logical component that interfaces with the on demand resource manager, the asset propagation manager having a defined interface for interfacing with any streaming server.
- 25 4. The system of claim 1 wherein the resource manager includes an encryption resource manager for provisioning and managing resources from an

encryption engine associated with the on demand delivery of the digital asset, the encryption resource manager being a separate logical component that interfaces with the session manager.

5                   5.       The system of claim 4 further comprising:  
a conditional access system in communication with an interface of the encryption engine for managing security of the digital asset, the conditional access system being a separate logical component that interfaces with the encryption engine.

10                 6.       The system of claim 1 wherein the resource manager includes a network resource manager for allocating and managing resources from a transport network associated with the on demand delivery of the digital asset, the network resource manager being a separate logical component that interfaces with the session manager.

15                 7.       The system of claim 1 wherein the resource manager includes an edge resource manager for allocating and managing resources from edge devices associated with the on demand delivery of the digital asset, the edge resource manager being a separate logical component that interfaces with the session manager.

20                 8.       The system of claim 1 wherein the resource manager includes a plurality of resource managers for managing different aspects of the architecture, each manager of the plurality being a separate logical component and interfacing with at least one system resource as well as interfacing with the session manager.

9.       The system of claim 8 wherein operation of each resource manager is asynchronous with respect operation of the session manager.

25                 10.       The system of claim 1 wherein the session manager is configured to manage switched broadcast video services.

11. The system of claim 1 wherein the session manager is configured to manage video on demand services.

12. The system of claim 1 wherein the session manager is configured to manage networked personal video recorder (PVR) services.

5 13. The system of claim 1 wherein the session manager is configured to manage on demand streaming media services.

14. The system of claim 1, wherein the resource manager is shared between different on demand services.

10 15. The system of claim 1, wherein the resource manager is shared between different devices.

16. The system of claim 1 further comprising a purchase server in communication with the session manager and in communication with the on demand client.

15 17. The system of claim 16 wherein the purchase server generates a token when an entitlement check performed in response to an on demand session purchase request from the on demand client results in authorization of a service, whereby future purchase requests may be authorized based on the presence of the token at the purchase server.

20 18. The system of claim 16 wherein the purchase server caches a result when an entitlement check performed in response to an on demand session purchase request from the on demand client results in authorization of a service, whereby future purchase requests may be authorized based on the presence of the cached entitlement result at the purchase server.

19. The system of claim 1 wherein the resource manager includes at least one of a streaming server and an edge device at which a digital program is insertable.

5 20. A system for on demand session and resource management in an on demand platform for the delivery of on demand digital assets, the system comprising:

a session manager for managing on demand sessions;

10 an on demand resource manager for allocating and managing resources from a streaming server associated with the on demand delivery of the digital asset, the on demand resource manager being a separate logical component that interfaces with the session manager;

15 an encryption resource manager for provisioning and managing resources from an encryption engine associated with the on demand delivery of the digital asset, the encryption resource manager being a separate logical component that interfaces with the session manager;

a network resource manager for allocating and managing resources from a transport network associated with the on demand delivery of the digital asset, the network resource manager being a separate logical component that interfaces with the session manager;

20 an edge resource manager for allocating and managing resources from edge devices associated with the on demand delivery of the digital asset, the edge resource manager being a separate logical component that interfaces with the session manager;

25 wherein the session manager and the resource managers cooperate to form an architecture partitioned into logical components, each logical component interfacing with at least one other logical component through a defined interface, with the session manager being a separate logical component; and

30 wherein the session manager and the resource managers cooperate to provide a distributed and scalable system for on demand session and resource management.

21. The system of claim 20 wherein each resource manager maintains and updates a topology and resources of devices managed thereby.

22. The system of claim 20 wherein each resource manager provides information to the session manager regarding an allocation of resources for  
5 the on demand session, and the session manager selects an appropriate combination of resources to enable the on demand session.